

IN THE CLAIMS

Please amend the Claims as follows:

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12. (AMENDED) A method of copper metallization in the fabrication of an integrated circuit device comprising:

providing an opening through a dielectric layer overlying a substrate on a wafer;

5 forming a copper layer overlying said dielectric layer and completely filling said opening;

polishing back said copper layer to leave said copper layer only within said opening;

A' coating an oxide layer on said dielectric layer and  
10 said copper layer and on the walls of a deposition chamber;

thereafter heating said wafer in said deposition chamber using  $\text{NH}_3$  plasma; and

thereafter depositing in said deposition chamber a  
15 capping layer overlying said oxide layer to complete said copper metallization in said fabrication of said integrated circuit device.

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22. (AMENDED) A method of copper metallization in the fabrication of an integrated circuit device comprising:

A<sup>2</sup> providing an opening through a dielectric layer

overlying a substrate on a wafer;

5        forming a copper layer overlying said dielectric layer and completely filling said opening;

         polishing back said copper layer to leave said copper layer only within said opening; and

         within 24 hours after said polishing back said  
10    copper layer, completing the following steps:

         coating an oxide layer on said dielectric layer and said copper layer and on the walls of a deposition chamber;

*A2  
cont'd*  
         thereafter heating in said deposition chamber said  
15    wafer using  $\text{NH}_3$  plasma; and

         thereafter depositing in said deposition chamber a capping layer overlying said oxide layer wherein said oxide layer on said walls of said deposition chamber prevents said capping layer from  
20    coating said deposition chamber walls thereby preventing formation of copper hillocks to complete said copper metallization in said fabrication of said integrated circuit device.

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